IN THE CLAIMS

Please amend the claims as follows:

Claims 47-85 (canceled)

86. (new) Electrical heating device for use in hot runner systems including manifolds and/or hot runner nozzles with at least one mold mass flow tube associated to a flow duct, comprising at least one insulating dielectric layer and at least one heating layer having heating conductors, the at least one insulating dielectric layer being applied by direct coating in an adherent manner onto a wall of the flow tube and being coated by said at least one heating layer having heating conductors, wherein the at least one insulating layer is a vitreous or ceramic dielectric layer which after a firing process is under permanent pressure pretension relative to the flow tube wall.

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87. (new) Device according to claim 86, wherein the insulating dielectric layer comprises a system of materials which includes at least one glass that does not become crystalline under predetermined baking conditions.

88. (new) Device according to claim 87, wherein the system of materials includes preformed glass, vitreous ceramics or ceramics suitable for wetting, at a predetermined baking temperature, the surface of the flow tube wall which is of metal, said insulating dielectric layer being at least partially in a crystalline state.

89. (new) Device according to claim 87, wherein the system of materials comprises at least one crystalline compound.

90. (new) Device according to claim 88, wherein the dielectric layer is a baked-on foil or a baked-on thick-film paste.

91. (new) Device according to claim 90, wherein the solid components portion of the thick-film paste consists exclusively of a glass that crystallizes in situ at a temperature range above 900 °C.

92. (new) Device according to claim 86, wherein the linear thermal expansion coefficient (TEC_{DE}) of the baked dielectric layer is smaller than the linear thermal expansion coefficient (TEC_M) of the flow tube wall, the difference between the linear thermal expansion coefficients ($TEC_{DE} - TEC_M$) amounting to at least $5.0 \cdot 10^{-6}$ K^{-1}.

93. (new) Device according to claim 86, wherein the linear thermal expansion coefficient (TEC_{DE}) of the insulating dielectric layer is between $5 \cdot 10^{-6}$ and $7 \cdot 10^{-6}$ K^{-1}.

94. (new) Device according to claim 86, wherein at least one electrically insulating cover layer tops the heating layer, at least one interlayer being provided between the insulating dielectric layer, the heating layer or the cover layer.

95. (new) Device according to claim 86, wherein there is at least one further layer whose electrical resistance depends on the temperature of the heating layer and/or of the flow tube wall, this resistor layer forming a thermoelement.

96. (new) Device according to claim 95, wherein the resistor layer and the heating layer are aligned with each other.

97. (new) Device according to claim 94, wherein the insulating dielectric layer, the heating layer, the cover layer, and the interlayer are baked-on foils or baked-on thick-film pastes.

98. (new) Device according to claim 94, wherein the insulating dielectric layer, the heating layer, the cover layer, and the interlayer form a layer compound.

99. (new) Hot runner nozzle comprising a heating device for use in hot runner systems including manifolds and/or hot runner nozzles with at least one mold mass flow tube associated to a flow duct, comprising at least one insulating dielectric layer and at least one heating layer having heating conductors, the at least one insulating dielectric layer being applied by direct coating in an adherent manner onto a wall of the flow tube and being coated by said at least one heating layer having heating conductors, wherein the at least one insulating layer is a vitreous or ceramic dielectric layer which after a firing process is under permanent pressure

pretension relative to the flow tube wall, wherein the heating device is fixed onto a cylindrical flow tube, a rod, or a manifold branch.

100. (new) Method for manufacturing a heating device for hot runner systems, in particular hot runner manifolds and/or hot runner nozzles having at least one mold mass flow tube, the at least one insulating dielectric layer being applied by direct coating in an adherent manner onto a wall of the flow tube and being coated by said at least one heating layer having heating conductors, wherein during the firing process, a pressure pretension is produced within the insulating dielectric layer relative to the flow tube wall.

101. (new) Method according to claim 100, wherein a mismatch is made of the linear thermal expansion coefficient (TEC_{DE}) of the baked dielectric layer relative to the linear thermal expansion coefficient (TEC_M) of the flow tube wall, depending on the expansion-relevant characteristics of said wall, the difference between the linear thermal expansion coefficients (TEC_{DE} - TEC_M) amounting to at least $5.0 \cdot 10^{-6}$ K^{-1}.

102. (new) Method according to claim 100, wherein the linear thermal expansion coefficient (TEC_{DE}) of the insulating dielectric layer is between $5.0 \cdot 10^{-6}$ K^{-1} and $7.0 \cdot 10^{-6}$ K^{-1}.

103. (new) Method according to claim 100, wherein the insulating dielectric layer is produced by firing a vitreous-crystalline material onto the flow tube wall, said

material comprising at least one performed glass which at firing temperature wets the metal surface and which at least partially assumes a crystalline state.

104. (new) Method according to claim 103, wherein said material comprises at least one further glass which does not become crystalline under firing conditions.

105. (new) Method according to claim 103, wherein said material comprises at least one crystalline compound.

106. (new) Method according to claim 100, wherein at least one insulating layer is a ceramic dielectric layer and the heating layer includes heating conductors.

107. (new) Method according to claim 100, wherein at least one electrically insulating layer is deposited on the or each heating layer.

108. (new) Method according to claim 107, wherein at least one interlayer is inserted between the dielectric layer and the heating layer.

109. (new) Method according to claim 100, wherein at least one further layer is deposited or inserted whose electrical resistance depends on the temperature of the heating layer or of the flow tube wall.

110. (new) Method according to claim 108, wherein each of the layers is separately deposited using foil technology, thick-film technology or screen printing.

111. (new) Method according to claim 108, wherein the layers are deposited using thick-film technology by way of pastes applied in a round-about printing process.

112. (new) Method according to claim 108, wherein each of the layers is separately deposited and is subsequently baked-on.

113. (new) Method according to claim 108, wherein baking is effected at a firing temperature between 800 °C and 1,100 °C.

114. (new) Method according to claim 108, wherein all the layers are separately deposited and are simultaneously baked-on by co-firing.

115. (new) Method according to claim 108, wherein the flow tube wall to be coated consists of a hardened or solidifiable material whose hardening temperature is not exceeded by the firing temperature of any of the layers.

116. (new) Method according to claim 115, wherein the process of hardening the flow tube wall is performed during at least one of the firing processes, the firing conditions being adjusted to the hardening temperature.

117. (new) Method according to claim 116, wherein the flow tube wall is inductively heated to hardening or firing temperature.

118. (new) Device according to claim 92, wherein the linear thermal expansion coefficient (TEC_{DE}) of the insulating dielectric layer is between $5 \cdot 10^{-6}$ and $7 \cdot 10^{-6}$ K^{-1}.

119. (new) Device according to claim 94, wherein there is at least one further layer whose electrical resistance depends on the temperature of the heating layer and/or of the flow tube wall, this resistor layer forming a thermoelement.

120. (new) Method according to claim 101, wherein the linear thermal expansion coefficient (TEC_{DE}) of the insulating dielectric layer is between $5.0 \cdot 10^{-6}$ K^{-1} and $7.0 \cdot 10^{-6}$ K^{-1}.

121. (new) Method according to claim 109, wherein each of the layers is separately deposited using foil technology, thick-film technology or screen printing.

122. (new) Method according to claim 109, wherein the layers are deposited using thick-film technology by way of pastes applied in a round-about printing process.

123. (new) Method according to claim 108 or claim 112, wherein baking is effected at a firing temperature between 800 °C and 1,100 °C.

124. (new) Device according to claim 94, wherein there is at least one further layer whose electrical resistance depends on the temperature of the heating layer and/or of the flow tube wall, this resistor layer forming a thermoelement, and

wherein the insulating dielectric layer, the heating layer, the cover layer, the interlayer, and the resistor layer are baked-on foils or baked-on thick-film pastes.

125. (new) Device according to claim 94, wherein there is at least one further layer whose electrical resistance depends on the temperature of the heating layer and/or of the flow tube wall, this resistor layer forming a thermoelement, and wherein the insulating dielectric layer, the heating layer, the cover layer, the interlayer form, and the resistor layer a layer compound.